

CLAIMS

1. A method for inhibiting proliferation and invasion of brain tumor cells by regulating Ca^{2+} permeability by an AMPA-type glutamate receptor subunit being expressed in a developing animal brain tumor cell.
2. The method for inhibiting proliferation and invasion of brain tumor cells according to claim 1, wherein the regulation of Ca^{2+} permeability by a glutamate receptor subunit is conducted by introducing a gene of an AMPA-type glutamate receptor subunit GluR2 into a developing animal brain tumor cell and expressing the gene.
3. The method for inhibiting proliferation and invasion of brain tumor cells according to claim 2, wherein the gene of an AMPA-type glutamate receptor subunit GluR2 is a cDNA of an AMPA-type glutamate receptor subunit GluR2.
4. The method for inhibiting proliferation and invasion of brain tumor cells according to claim 2 or 3, wherein the gene of an AMPA-type glutamate receptor subunit GluR2 is introduced into a developing animal brain tumor cell by an expression vector, and is expressed.
5. The method for inhibiting proliferation and invasion of brain tumor cells according to claim 4, wherein the expression vector is a vector using an adenovirus.
6. The method for inhibiting proliferation and invasion of brain

tumor cells according to any one of claims 1 to 5, wherein the brain tumor cell is a glioblastoma.

7. A gene expression vector for treating a brain tumor wherein a gene of an AMPA-type glutamate receptor subunit GluR2 is incorporated into a gene introduction/expression vector for a brain tumor cell.

8. The gene expression vector for treating a brain tumor according to claim 7, wherein the expression vector is an adenoviral vector.

9. A gene introduction kit for treating a brain tumor containing the gene expression vector for treating a brain tumor according to claim 7 or 8.

10. A method for measuring proliferation/invasion activity of brain tumor cells wherein the expression of an AMPA-type glutamate receptor subunit in a developing animal brain tumor cell is detected/measured.

11. The method for measuring proliferation/invasion activity of brain tumor cells according to claim 10, wherein the detection/measurement of the glutamate receptor subunit is detection/measurement of an AMPA-type glutamate receptor subunit GluR2.